

# DOMESTIC RADIOACTIVE MIXED WASTE SHIPMENT CHECKLIST

Onsite Shipment ☐ (HNF-RD-7900, One/One not required) ☐ Offsite Shipment (HNF-RD-7900)

Date of Shipment: \_\_\_\_\_ Originating Facility: \_\_\_\_\_

HAZMAT Shipper: \_\_\_\_\_ Destination: \_\_\_\_\_

Shipment Number: \_\_\_\_\_ Requestor: \_\_\_\_\_

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REQUIREMENT		YES		N/A	
Section A: Shipment preparations (Subject to One over One Review)		Shipper	One One	Shipper	One One
1	If shipment includes fissile, Type B quantities or gas poisonous by inhalation, consignee notified of: date of shipment, expected date of arrival and of any special loading or unloading instructions? (DOE O 460.2)				
2	If material meets definition of Accountable Nuclear Material, Safeguards and Security requirements must be met (DOE O 5633.3B, HNF-MP-5477, HNF-PRO-156, HNF-PRO-157)				
Section B: Characterization documentation (Subject to One over One Review)					
1	Is the material not forbidden for transportation? (173.21)				
2	Is the radioactive source term data presented in a form that is usable and complete? (HNF-PRO-156, HNF-PRO-157)				
3	Have the class 7 calculations been completed? This can be done via RadCalc. (BMP)				
4	Has the material been evaluated to be solid, liquid/sludge or gas matrix? (171.8)				
5	Is the material greater than 70 Bq per gram? (173.403)				
6	Does the material meet special form, is the special form certification available and is the special form certificate current for use? (173.403, 173.435, 173.469, 173.476)				
7	Will the materials, as packaged, meet Limited Quantity exceptions (this includes dose and quantity limitations)? (173.421, 173.423)				
8	Does the material fall under Type A or Type B quantities? (173.403, 173.435)				
9	Does the material meet the definition of LSA? (173.403, 173.427)				
10	Does the material meet the definition of SCO? (173.403, 173.427)				
11	Does the material classify as a Highway Route Controlled Quantity? (173.403)				
12	Is the material fissile or fissile excepted (check both if both apply as part of shipment)? (173.403, 173.417, 173.453, 173.457, 173.459)				
13	Does the material meet the definition for RQ for radioactive quantity? (172.101 Table 2 to App. A)				
14	Does the material meet the definition for RQ for hazardous material? (172.101 Table 1 to App. A)				
15	Is the material specifically listed Uranium or Thorium shipping name? (172.101)				
16	Does the material meet the definition of another hazard class(s)? (173.2)				
17	Have the primary, secondary and tertiary hazard class(s) been determined? (173.2a)				
18	Do the radiation and contamination levels conform to the PSN and shipping mode selected? (173.441, 173.442, 174.443, 173.448)				
19	Does the material conform to any exemptions? (173.22a)				
20	Has the exemption been reviewed for applicability, to verify if it has not expired, to verify that DOT has not cancelled it and if the shipper is authorized to use it? (107.101, 173.22a)				
21	Marking checklist(s) have been completed for containers on shipment? (HNF-PRO-156, HNF-PRO-157)				
22	Does material qualify as Accountable Nuclear Material? (DOE O 5633.3B, HNF-MP-5477, HNF-PRO-156, HNF-PRO-157)				
23	Has the CoC been reviewed, is the CoC still current, is the CoC applicable for use and is the CoC being used by the packaging facility to prepare the package for use? (173.413, 173.416, 173.431, 173.467, 173.471, 173.473, 173.474, 173.475)				
24	Has the waste been designated and does the designation show State or Federal waste codes?				

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Shipment Number		YES		N/A	
REQUIREMENT		Shipper	One One	Shipper	One One
<b>Section B: Characterization documentation Continued</b>					
25	Has the Package Manufacture's SARP or OMM been reviewed, is the current revision and it is being used by the packaging facility to prepare the package for use? (173.413, 173.416, 173.431, 173.467, 173.471, 173.473, 173.474, 173.475)				
26	Has the Hanford Site SARP been reviewed, is the SARP the current revision and is the SARP being used by the packaging facility to prepare the package for use? (HNF-PRO-156)				
27	If the SARP allows deviations or if the packaging facility cannot meet the SARP, has Package Engineering or Shipper evaluated the deviations, as delineated in the SARP, and has documentation been approved by T&P Program Manager and entered into the shipping file? (HNF-PRO-156, HNF-PRO-157)				
<b>Section C: Uniform Hazardous Waste Manifest (UHW)</b>					
1	Each hazardous material is identified on the UHW (172.200)				
2	Hazardous material descriptions are entered before materials not subject to 49 CFR (172.201(a)(1)				
3	Shipping paper pages are numbered consecutively with first page specifying total number of pages (172.201(c))				
4	"RQ" is shown (if applicable) for packages containing RQ of radioactive isotopes (172.201(a)(1)				
5	"RQ" is shown (if applicable) with the applicable hazardous substance(s) identified (172.201(a)(1)				
6	"X" is shown in HM column before proper shipping name (172.201(a)(1)				
7	Proper shipping names for hazardous materials are shown (172.202 (a)(1)				
8	Word "Waste" is added to Proper shipping name(s) as appropriate (171.101 (c)(9)				
9	Hazard class of the material identified is shown (subsidiary hazard class may be entered following the primary hazard class or may be entered following the basic description) (172.202 (a)(2)				
10	Identification number of the hazardous material is shown (172.202 (a)(3)				
11	The words "Radioactive material" are shown unless these words are contained in the proper shipping name (172.202 (d)(1))				
12	Applicable radio nuclides are shown (173.433(f), 173.435, 172.203(d)(2))				
13	Physical form description is shown (172.202 (d)(3))				
14	Chemical form description is shown (172.202 (d)(3))				
15	The activity contained in each package is shown in terms of SI units (Becquerel, Terabecquerel, etc.) (172.202 (d)(4))				
16	The category of label applied to each package is shown (if applicable) (172.202 (d)(5))				
17	The transport index (TI) assigned to each package bearing Radioactive Yellow-II or III labels is shown (172.203(d)(6))				
18	For a shipment of fissile radioactive materials, the words "Fissile Excepted" is shown if the package is excepted per 173.453 (172.203(d)(7))				
19	For a shipment of fissile radioactive materials, for a fissile controlled shipment, the additional notation: "Warning-Fissile Material, controlled shipment. Do not load more than *** packages per vehicle." (Asterisk to be replaced by appropriate number.) "In loading and storage areas, keep at least 6 meters (20 feet) from other packages bearing radioactive labels" is shown. (172.203(d)(7), 173.457, 173.459)				
20	For a package approved by the U.S. Department of Energy (DOE) or U.S. Nuclear Regulatory Commission (USNRC), a notation of the package identification marking is shown as prescribed in the applicable DOE or USNRC approval. (173.471, 172.203(d)(8))				
21	An indication that the shipment is consigned as exclusive use is shown (172.203(d)(10))				
22	For a shipment of low specific activity material or surface contaminated objects, the appropriate group notation of LSA-I, LSA-II, LSA-III, SCO-I, or SCO-II is shown. (172.203(d)(11))				
23	"DOT-E" followed by exemption number noted on UHW in association with applicable description. Copy of any/all exemptions attached to UHW and included in total number of pages (172.203(a))				
24	The quantity and units of each hazardous material is shown (172.203(a)(5))				
25	Individual package weight(s) are shown (BMP)				
26	Emergency response phone number entered (172.201(d))				
27	Placarding shown on UHW (BMP)				
28	All entries on UHW are legible on all copies (172.201(a)(2))				
29	Exclusive Use Instructions are included as part of shipping papers (173.427(a)(6)(i)-(vii), 173.441(c))				
30	Technical names for "n.o.s." and other generic descriptions are entered, if applicable (172.203 (k)				

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		Shipper	One One	Shipper	One One
<b>Section C: Uniform Hazardous Waste Manifest Continued</b>					
31	Are State or Federal waste codes or waste handling codes shown on UHWM? (BMP)				
32	Poisonous material are described per 172.203 (m), if applicable				
33	HRCQ Instructions are included as part of shipping papers (BMP, 397.101)				
34	Emergency Response Guide number(s) entered on shipping paper (BMP)				
<b>Section D: Packages</b>		<b>Shipper</b>		<b>Shipper</b>	
1	Package is approved for the hazardous material to be shipped in it? ((173.3, 173.21, 173.22, 173.24a, 173.24b, 173.25, 173.428, 173.441, 173.442, 173.443, 173.474, 173.475, 172.101 Table – Column 8)				
2	Have special provisions been complied with? (172.101 Table – Column 7)				
3	Are packages free from defects, breaches and bulges? (HNF-PRO-156, HNF-PRO-157, 173.24)				
4	Packages closed per manufacture's instructions ___ or facility procedure for limited quantity ___ or closed per the Onsite SARP? (HNF-PRO-156, HNF-PRO-157, SARP, 173.24)				
5	Is package being shipped under exemption? Package must be marked with exemption number (172.301 (c))				
6	Is exemption applicable to this shipment as packaged? (173.22a)				
7	Are packages labeled correctly? (172.400, 173.433(f))				
8	Are packages marked correctly? (172.300, 172.310)				
9	Do liquid combination packages have orientation marking applied? (172.312)				
10	Containers are sealed with tamper indicating devices? (173.412, 173.413, HNF-MP-5477)				
11	Are required markings to meet receiving facility acceptance criteria completed? (BMP)				
<b>Section E: Vehicle and Driver (Not Subject to One Over One Review)</b>					
1	Carrier possesses EPA hazardous waste number and passed MCEP (DOE G 460.2-1 3.1.3, DOE G 460.1-1)				
2	Driver has current CDL with correct endorsements (177.816) and current DOT medical Card (391.41)				
3	Driver has current version of Emergency Response Guidebook (172.602)				
4	RSPA Hazardous Materials Registration current and with vehicle (107.608)				
5	Vehicle DOT inspection completed within the past 12 months on power unit (396.17, 396.23)				
6	Vehicle DOT inspection completed within the past 12 months on trailer(s) (396.17, 396.23)				
7	Vehicle appears to be in good working order including tire condition, windshield and mirrors (BMP)				
8	Container segregation appropriate for materials as loaded on vehicle (49 CFR Part 177 Subpart C)				
9	Packages loaded properly braced and secured on vehicle (173.30, 49 CFR 393 Subpart I, 177.834, HNF-PRO-156, HNF-PRO-157)				
10	Vehicle Placarded as required (49 CFR Part 172 Subpart F)				
11	Vehicle Marked with "orange panels" or "PCB" Markings (172.332, HNF-PRO-156, HNF-PRO-157, HNF-PRO-3152 3. b.)				
12	If shipment is HRCQ, driver must have HRCQ training credentials (177.816)				
13	If shipment is truck load quantity or exclusive use, is carrier on approved MCEP list (DOE O 460.2)				
<b>Section F: Shipment completion</b>					
1	UHWM signed and dated by shipper (172.204)				
2	UHWM signed and dated by carrier (172.205)				
3	RSR signed by RadCon (HNF-PRO-156, HNF-PRO-157)				
4	Special loading or unloading instructions included as part of shipping papers (HNF-PRO-157)				
<b>Section G: Other Shipment Requirements</b>					
1	POC and ONC are notified of shipment (HNF-PRO-156, HNF-PRO-157)				
2	Receiver is notified of shipment date and is authorized to receive shipment (HNF-PRO-157)				
3	DOE-HQ approval for RAM shipments other than ltd qty, sample, sealed source, empty and laundry shall be submitted to the FH traffic manager or delegate by C.O.B. Tuesday of the week preceding shipment.				

**Comments:** \_\_\_\_\_

Checklist completed by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Signature of HAZMAT Shipper
Printed name

One/One completed by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Signature of HAZMAT Shipper
Printed name

1162 Review completed by: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Signature of HAZMAT Shipper
Printed name